ENVIRONMENTAL

Fact Sheet



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WMD-SW-21 1998

Federal Criteria for Municipal Solid Waste Landfills 40 CFR Part 258, Subtitle D of RCRA

The purpose of this fact sheet is to help New Hampshire communities understand the possible effects of federal municipal solid waste (MSW) landfill regulations, particularly those which affect closure and postclosure requirements. Note that 40 CFR, Part 258 also contains other regulations affecting location, design and operation of new or expanded landfills.

Who is affected by the federal landfill criteria and when?

If after October 9, 1991 a landfill continued to receive waste but stopped doing so on or before April 9, 1994 or October 9, 1993 as shown on the attached chart, it is subject only to the final cover requirements provided the final cover was in place on or before October 9, 1994. If waste was received after April 9, 1994 or October 9, 1993, as applicable, or if the final cover was not in place by October 9, 1994, then the landfill is subject to all requirements of 40 CFR Part 258 as they progressively become effective. Approximately four of five landfills in New Hampshire are excluded from federal regulation as described below because they stopped receiving waste by October 9, 1991 but remain subject to state landfill closure requirements.

What is the scope of the federal regulations?

The federal regulations deal with: location restrictions*, operating and design criteria; requirements for final cover and post-closure care; and, groundwater monitoring to detect any releases of contaminants from landfills. In addition, there are corrective (remedial) action and financial assurance provisions to ensure effective response and the dedication of financial resources needed to complete the corrective action.

What is the advantage to closing under state versus federal regulations?

The state has received federal approval to administer the federal landfill regulations. With that approval comes certain flexibility which **can**, depending upon the circumstances of a specific landfill, result in more efficient closure activities and possibly reduced landfill closure costs. Such flexibility stems primarily from the New Hampshire *Solid Waste Rules* which are performance based. As related to landfill closure, federal **approval** allows the state to authorize such things as the use of alternative *final cover*; time extensions, and, revised reporting requirements during the 30 year *post-closure* care period. With respect to *corrective action*, the state may, for example, specify an alternative time period defining when a site is satisfactorily remediated.

*See glossary for italicized terms

Other elements of 40 CFR Part 258 also have flexibility for an approved state. New Hampshire utilizes the flexibility to the greatest extent possible while meeting its obligation of protecting human health and the environment.

What is the state role in helping communities meet the federal requirements?

To facilitate the process of landfill closure, the N.H. Department of Environmental Services reviews and comments on engineering and other technical submissions made by communities to ensure that the closure design reflects good engineering practice; meets with community leaders and their engineers to discuss closure design alternatives; conducts periodic site visits during closure construction; conducts training programs; and, reviews monitoring data to determine whether the performance objectives of closure are being met. A guidance document on landfill closure is available to assist towns and their engineers throughout the closure process (See fact sheet WMD-SW-5 for more information on Landfill Closure.)

A suggested perspective for communities on the issue of landfill closure.

Long-term planning and effective management of landfills is critical to the environmental health of the community. An ounce of prevention is truly worth a pound of cure in this case since restoring contaminated groundwater to its original pristine state is both expensive and lengthy. As New Hampshire is dependent upon groundwater for many of its drinking water supplies, we must ensure that these supplies are safe for present and for future generations.

Key Points

The federal landfill requirements are broad in scope, dealing with *location restrictions*, *operating* and design criteria, final cover and post-closure care, groundwater monitoring, corrective action and financial assurance.

The federal regualtions do **not** apply to landfills which stopped receiving waste before October 9, 1991.

The federal criteria will be phased in over the next few years and fully apply to facilities on the schedule shown on the chart below.

GLOSSARY

40 CFR, Part 258: The USEPA has put in place federal requirements for MSW landfills in regulations published in Part 258, Volume 40 of the Code of Federal Regulations (CFR).

Location Restrictions: Proximity to flood plains, wetlands, fault areas and seismic zones, and unstable areas are all factors in landfill siting. Because of the bird hazard that threatens aircraft operation, landfill owners must demonstrate that no bird hazard will exist if they are located near airports.

Operating and Design Criteria: Landfills must be operated in such a way as to protect human health and the environment. Disposal of hazardous wastes and other liquids are not permitted in MSW landfills, and explosive gases and air emissions must be controlled. The criteria require: daily cover to prevent the spread of disease; the control of storm water to limit run-off liquids; and limited access to prevent illegal dumping.

Closure and Post-Closure Care: When a landfill owner/operator stops accepting waste, the landfill must be "closed" in a way that will remedy current problems and/or prevent long-term problems. The final cap must be designed to keep liquid away from the buried waste and the landfill must be monitored and maintained for a minimum of 30 years.

Groundwater Monitoring: Systems designed to detect contaminant releases to groundwater must be sampled and the samples analyzed on a scheduled basis.

Corrective Action: If the groundwater becomes contaminated, landfill owners/operators must undertake measures to clean up the problem. For example, corrective action may include installing low permeability cover (cap) on top of the landfill and/or pumping and treating the groundwater for an extended period.

Financial Assurance: To ensure that monies are available to correct environmental problems, landfill owners/operators must demonstrate the financial means to cover expenses for site closure post closure monitoring and maintenance. Mechanisms to assure this include surety bonds, insurance, and letters of credit.

Final Cover: The final cover of a landfill is comprised of soils, and often times synthetic materials, constructed to shed water and minimize the potential for infiltration of precipitation.

For more information, contact:

N.H. Department of Environmental Services Waste Management Division 29 Hazen Drive, Concord, NH 03301-6509 Telephone Number: (603) 271-2900

FEDERAL LANDFILL CRITERIA: KEY IMPLEMENTATION DATES

Am I a MSWLF* accepting 100 tons per day or less of MSW?	Am I a MSWLF* accepting more than 100 tons per day of MSW?
If I stop receiving waste between October 9 , 1991 and April 9 , 1994 I am subject to only the final cover if I complete construction of the cover (cap) before October 9,1994.	If I stop receiving waste between October 9, 1991 and October 9, 1993 I am subject to only the final cover if I complete construction of the cover (cap) before October 9,1994.
If I stop receiving waste after April 9, 1994 I am subject to all federal regulations which are phased in as follows:	If I stop receiving waste after October 9 , 1993 I am subject to all federal regulations which are phased in as follows:
Effective April 9, 1994	Effective October 9, 1993
 Location Restrictions Design Criteria Operating Criteria Groundwater Monitoring & Corrective Action for new units 	 Location Restrictions Design Criteria Operating Criteria Groundwater Monitoring & Corrective Action for new units

- Closure and Post-closure Care
- Closure and Post-closure Care

Effective October 9, 1994 Groundwater Monitoring and Corrective Action for existing units or lateral expansions less than 1 mile from drinking water intake.

Effective October 9, 1995

Groundwater Monitoring and Corrective Action for **existing units** or **lateral expansions** one mile or greater but less than 2 miles from drinking water intake.

Effective October 9, 1996

Groundwater Monitoring and Corrective action for **existing units** or **lateral expansions** greater than 2 miles from a drink water intake.

Effective April 9, 1997

Financial Assurance

*MSWLF: Municipal Solid Waste Landfill as

defined in 40 CFR Part 258 is one that accepts household waste, non-hazardous incinerator ash, co-disposed sewage sludge, septage and other types of commercial or Industrial non-hazardous solid waste typically disposed in a Municipal Solid Waste Landfill after October 9,1991.